

**COMMONWEALTH OF VIRGINIA  
STATE AIR POLLUTION CONTROL BOARD  
REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION**

**PROVISIONS AFFECTED  
REVISION B16 WITH REVISIONS D97, C09, D09, E09  
CONCERNING**

**STARTUP/SHUTDOWN/MALFUNCTION  
(9VAC5 CHAPTER 20)**

The following table lists the specific provisions of the attached regulations that will be used to implement the State Implementation Plan (SIP). Highlighted provisions are included for information purposes only and are not to be construed as part of the Commonwealth's SIP, nor are any provisions directly related to the highlighted provisions to be considered as part of the SIP. A copy of the actual regulations submitted for approval and incorporation by reference into the Virginia SIP is included in Enclosure 2; details concerning the specific provisions that are not to be included in the Virginia SIP are noted in this copy.

**REVISION B16 - Adopted March 11, 2016, effective June 1, 2016**

<u>CHAPTER 20</u>	<u>GENERAL PROVISIONS</u>
Part II	Air Quality Programs
9VAC5-20-180	Facility and control equipment maintenance or malfunction (modified) Subsections A, B, D, E, F, H, I, J Subsections C and G

**REVISION D97 - Adopted May 21, 2002, Effective August 1, 2002**

<u>CHAPTER 20</u>	<u>GENERAL PROVISIONS</u>
Part II	Air Quality Programs
9VAC5-20-180	Facility and control equipment maintenance or malfunction (modified) Subsection G

**REVISION C09 - Adopted June 19, 2015, Effective February 1, 2016**

**CHAPTER 40**      **EXISTING STATIONARY SOURCES**

**Part II**              **Emission Standards**

ARTICLE 56              EMISSION STANDARDS FOR LETTERPRESS PRINTING  
OPERATIONS IN THE NORTHERN VIRGINIA VOLATILE  
ORGANIC COMPOUND EMISSIONS CONTROL AREA, 8-HOUR  
OZONE STANDARD (RULE 4-56)

9VAC5-40-8416      Facility and control equipment maintenance or malfunction (added)

ARTICLE 56.1              EMISSION STANDARDS FOR OFFSET LITHOGRAPHIC  
PRINTING OPERATIONS IN THE NORTHERN VIRGINIA  
VOLATILE ORGANIC COMPOUND EMISSIONS CONTROL AREA,  
8-HOUR OZONE STANDARD (RULE 4-56.1)

9VAC5-40-8470      Facility and control equipment maintenance or malfunction (added)

**REVISION D09 - Adopted June 19, 2015, Effective February 1, 2016**

**CHAPTER 40**      **EXISTING STATIONARY SOURCES**

**PART II**              **Emission Standards**

ARTICLE 57              EMISSION STANDARDS FOR INDUSTRIAL SOLVENT CLEANING  
OPERATIONS IN THE NORTHERN VIRGINIA VOLATILE  
ORGANIC COMPOUND EMISSIONS CONTROL AREA, 8-HOUR  
OZONE STANDARD (RULE 4-57)

9VAC5-40-8640      Facility and control equipment maintenance or malfunction (added)

ARTICLE 58              EMISSION STANDARDS FOR MISCELLANEOUS INDUSTRIAL  
ADHESIVE APPLICATION PROCESSES IN THE NORTHERN  
VIRGINIA VOLATILE ORGANIC COMPOUND EMISSIONS  
CONTROL AREA, 8-HOUR OZONE STANDARD (RULE 4-58)

9VAC5-40-8790      Facility and control equipment maintenance or malfunction (added)

**REVISION E09 - Adopted June 19, 2015, Effective February 1, 2016**

**CHAPTER 40**      **EXISTING STATIONARY SOURCES**

**PART II**              **Emission Standards**

ARTICLE 59            EMISSION STANDARDS FOR MISCELLANEOUS METAL PARTS  
AND PRODUCTS COATING APPLICATION SYSTEMS IN THE  
NORTHERN VIRGINIA VOLATILE ORGANIC COMPOUND  
EMISSIONS CONTROL AREA, 8-HOUR OZONE STANDARD  
(RULE 4-59)

9VAC5-40-8940      Facility and control equipment maintenance or malfunction (added)

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REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION (9VAC5-20)

**REVISION B16**  
**BOARD-ADOPTED REGULATION**

REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION (9VAC5-20)

9VAC5 CHAPTER 20.  
GENERAL PROVISIONS.

PART II.  
Air Quality Programs.

9VAC5-20-180. Facility and control equipment maintenance or malfunction.

A. The provisions of this section apply to periods of excess emissions resulting from (i) the shutdown or bypassing, or both, of air pollution control equipment for necessary scheduled maintenance and (ii) malfunctions or other equipment failures of any affected facility or related air pollution control equipment.

B. In case of shutdown or bypassing, or both, of air pollution control equipment for necessary scheduled maintenance which results in excess emissions for more than one hour, the intent to shut down such equipment shall be reported to the board and local air pollution control agency, if any, at least 24 hours prior to the planned shutdown. Such prior notice shall include, but is not limited to, the following:

1. Identification of the specific facility to be taken out of service as well as its location and permit or registration number;

2. The expected length of time that the air pollution control equipment will be out of service;

3. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period; and

4. Measures that will be taken to minimize the length of the shutdown and to negate the effect of the outage of the air pollution control equipment.

C. In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, ~~as soon as practicable but~~ no later than ~~4~~ four daytime business hours after the malfunction is discovered, notify the board ~~by facsimile transmission, telephone or telegraph~~ of such failure or malfunction and shall within ~~two weeks~~ 14 days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown and the demonstrations in subsection G of this section. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this subsection for facilities subject to the monitoring requirements of 9VAC5-40-40 and 9VAC5-50-40. When the condition causing the failure or malfunction has been corrected and the

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facility or control equipment is again in operation, the owner shall notify the board.

D. In the event that the breakdown period cited in subsection C of this section exists or is expected to exist for 30 days or more, the owner shall, as expeditiously as possible but no later than 30 days after the failure or malfunction and semi-monthly thereafter until the failure or malfunction is corrected, submit to the board a written report containing the following:

1. Identification of the specific facility that is affected as well as its location and permit or registration number;
2. The expected length of time that the air pollution control equipment will be out of service;
3. The nature and quantity of air pollutant emissions likely to occur during the breakdown period;
4. Measures to be taken to reduce emissions to the lowest amount practicable during the breakdown period;
5. A statement as to why the owner was unable to obtain repair parts or perform repairs which would allow compliance with the Regulations for the Control and Abatement of Air Pollution within 30 days of the malfunction or failure;
6. An estimate, with reasons given, of the duration of the shortage of repairs or repair parts which would allow compliance with the Regulations for the Control and Abatement of Air Pollution; and
7. Any other pertinent information as may be requested by the board.

E. The provisions of subsection D of this section shall not apply beyond three months of the date of the malfunction or failure. Should the breakdown period exist past the three-month period, the owner may apply for a variance in accordance with 9VAC5-20-50 A.

F. The following special provisions govern facilities which are subject to the provisions of Article 5 (9VAC5-50-400 et seq.) of Part II of 9VAC5 Chapter 50, Article 1 (9VAC5-60-60 et seq.) of Part II of 9VAC5 Chapter 60, or Article 2 (9VAC5-60-90 et seq.) of Part II of 9VAC5 Chapter 60:

1. For sources subject to the applicable subparts listed in 9VAC5-50-410, any provisions governing malfunctions shall be implemented through this section. In

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cases where there are differences between the provisions of this section and the provisions of 40 CFR Part 60, the more restrictive provisions shall apply.

2. For sources subject to the applicable subparts listed in 9VAC5-60-70, any provisions governing malfunctions shall be implemented through this section. In cases where there are differences between the provisions of this section and the provisions of 40 CFR Part 61, the more restrictive provisions shall apply.

3. For sources subject to the applicable subparts listed in 9VAC5-60-100, any provisions governing malfunctions shall be implemented through this section. In cases where there are differences between the provisions of this section and the provisions of 40 CFR Part 63, the more restrictive provisions shall apply.

~~G. No violation of applicable emission standards or monitoring requirements shall be judged to have taken place~~ In accordance with subsection C of this section, if the excess emissions or cessation of monitoring activities is due to a malfunction, provided that the owner may demonstrate the following:

1. The cause of the excess emissions or cessation of monitoring activities meets the definition of malfunction provided in 9VAC5-10-20;

~~4~~ 2. The procedural requirements of this section were met or the owner has submitted an acceptable application for a variance, which is subsequently granted;

~~2~~ 3. The owner has taken expeditious and reasonable measures to minimize emissions during the breakdown period;

~~3~~ 4. The owner has taken expeditious and reasonable measures to correct the malfunction and return the facility to a normal operation; and

~~4~~ 5. The source is in compliance with related applicable emission standards or monitoring requirements at least 90% of the operating time over the most recent 12-month period.

H. Nothing in this section shall be construed as giving an owner the right to increase temporarily the emission of pollutants or to circumvent the emission standards or monitoring requirements otherwise provided in the Regulations for the Control and Abatement of Air Pollution.

I. Regardless of any other provision of this section, the owner of any facility subject to the Regulations for the Control and Abatement of Air Pollution shall, upon request of the board, reduce the level of operation at the facility if the board determines

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that this is necessary to prevent a violation of any primary ambient air quality standard. Under worst case conditions, the board may order that the owner shut down the facility, if there is no other method of operation to avoid a violation of the primary ambient air quality standard. The board reserves the right to prescribe the method of determining if a facility will cause such a violation. In such cases, the facility shall not be returned to operation until it and the associated air pollution control equipment are able to operate without violation of any primary ambient air quality standard.

J. Any owner of an affected facility subject to the provisions of this section shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. The records shall be maintained in a form suitable for inspection and maintained for at least two years (unless a longer period is specified in the applicable emission standard) following the date of the occurrence.

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REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION

**REVISION D97  
BOARD-ADOPTED REGULATION**

REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION

9 VAC 5 CHAPTER 20.

GENERAL PROVISIONS.

PART II.

Air Quality Programs.

9 VAC 5-20-180. Facility and control equipment maintenance or malfunction.

A. ~~[At all times, including periods of startup, shutdown and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment or monitoring equipment, in a manner consistent with good air pollution control practice of minimizing emissions. The provisions of this section apply to periods of excess emissions resulting from (i) the shutdown or bypassing, or both, of air pollution control equipment for necessary scheduled maintenance and (ii) malfunctions or other equipment failures of any affected facility or related air pollution control equipment. The provisions of subsection G of this section shall not apply to the following:~~

1. Sources subject to the applicable subparts listed in 9 VAC 5-50-410 unless specifically allowed by the applicable subparts listed in 9 VAC 5-50-410.

2. Sources subject to the applicable subparts listed in 9 VAC 5-60-70 unless specifically allowed by the applicable subparts listed in 9 VAC 5-60-70.

3. Sources subject to the applicable subparts listed in 9 VAC 5-60-100 unless specifically allowed by the applicable subparts listed in 9 VAC 5-60-100.

4. Sources and pollutants in areas where a single source or small group of sources has the potential to cause an exceedance of any ambient air quality standard or any ambient air increment prescribed under 9 VAC 5-80-1730.

5. Affected units subject to a federal operating permit unless specifically allowed by the permit. This prohibition applies only to terms and conditions of the permit derived from the acid rain program.]

B. In case of shutdown or bypassing, or both, of air pollution control equipment for necessary scheduled maintenance which results in excess emissions for more than one hour, the intent to shut down

REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION

such equipment shall be reported to the board and local air pollution control agency, if any, at least 24 hours prior to the planned shutdown. Such prior notice shall include, but is not limited to, the following:

1. Identification of the specific facility to be taken out of service as well as its location and permit or registration number;
2. The expected length of time that the air pollution control equipment will be out of service;
3. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period; and
4. Measures that will be taken to minimize the length of the shutdown ~~or~~ and to negate the effect of the outage of the air pollution control equipment.

C. In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than ~~four~~ six daytime business hours after the malfunction is discovered, notify the board by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within two weeks provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the facility or control equipment is again in operation, the owner shall notify the board.

D. In the event that the breakdown period cited in subsection C of this section exists or is expected to exist for 30 days or more, the owner shall, ~~within 30 days~~ as expeditiously as possible but no later than 30 days after of the failure or malfunction and semi-monthly thereafter until the failure or malfunction is corrected, submit to the board a written report containing the following:

1. Identification of the specific facility that is affected as well as its location and permit or registration number;

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2. The expected length of time that the air pollution control equipment will be out of service;
3. The nature and quantity of air pollutant emissions likely to occur during the breakdown period;
4. Measures to be taken to reduce emissions to the lowest amount practicable during the breakdown period;
5. A statement as to why the owner was unable to obtain repair parts or perform repairs which would allow compliance with the ~~[provisions of these regulations]~~ Regulations for the Control and Abatement of Air Pollution within 30 days of the malfunction or failure;
6. An estimate, with reasons given, of the duration of the shortage of repairs or repair parts which would allow compliance with the ~~[provisions of these regulations]~~ Regulations for the Control and Abatement of Air Pollution; and
7. Any other pertinent information as may be requested by the board.

E. The provisions of subsection D of this section shall not apply beyond three months of the date of the malfunction or failure. Should the breakdown period exist past the three-month period, the owner may apply for a variance in accordance with 9 VAC 5-20-50 A.

~~F. The following special provisions govern facilities which are subject to the provisions of Article 3 (9 VAC 5-40-160 et seq.) of 9 VAC 5 Chapter 40, Article 3 (9 VAC 5-50-160 et seq.) of 9 VAC 5 Chapter 50, or Article 1 (9 VAC 5-60-60 et seq.) 9 VAC 5 Chapter 60:~~

~~1. Nothing in this section shall be understood to allow any such facility to operate in violation of applicable emission standards, except that all such facilities shall be subject to the reporting and notification procedures in this section.~~

~~2. Any facility which is subject to the provisions of Article 1 (9 VAC 5-60-60 et seq.) 9 VAC 5 Chapter 60 shall shut down immediately if it is unable to meet the applicable emission standards, and it shall not return to operation until it is able to operate in compliance with the applicable emission standards.~~

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~~3. Regardless of any other provision of this section, any facility which is subject to the provisions of Article 3 (9 VAC 5-40-160 et seq.) of 9 VAC 5 Chapter 40 or Article 3 (9 VAC 5-50-160 et seq.) of 9 VAC 5 Chapter 50 shall shut down immediately upon request of the board if its emissions increase in any amount because of a bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment; and such facility shall not return to operation until it and the associated air pollution control equipment are able to operate in a proper manner. For sources subject to the applicable subparts listed in 9 VAC 5-60-100, the provisions of 40 CFR 63.6 governing malfunctions shall be implemented through this section. In cases where there are differences between the provisions of this section and the provisions of 40 CFR Part 63, the more restrictive provisions shall apply.~~

G. ~~[No If a]~~ violation of applicable emission standards ~~[or monitoring requirements shall be is]~~ judged to have taken place ~~[if the as a result of periods of]~~ excess emissions ~~[or cessation of monitoring activities is due to a malfunction subject to this section]~~, [the owner is entitled to an affirmative defense for relief from penalties] provided [the owner proves] that:

1. The procedural requirements of this section ~~[are were]~~ met or the owner has submitted an acceptable application for a variance, which is subsequently granted;

2. ~~[The owner has taken expedient expeditious and reasonable measures to minimize emissions during the breakdown period]~~ The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of excess emissions];

3. ~~[The owner has taken expedient expeditious and reasonable measures to correct the malfunction and return the facility to a normal operation; and]~~ Repairs were made in an expeditious fashion when the owner knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime shall have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as practicable;]

4. The source is in compliance at least 90% of the operating time over the most recent 12-month period[;

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5. The source is in compliance with any source-specific applicable requirements related to the provisions of this section;

6. The excess emissions were caused by a sudden, unavoidable breakdown of technology, beyond the control of the owner;

7. The excess emissions (i) did not stem from any activity or event that could have been foreseen and avoided, or planned for, and (ii) could not have been avoided by better operation and maintenance practices;

8. To the maximum extent practicable the air pollution control equipment or processes were maintained and operated in a manner consistent with good practice for minimizing emissions;

9. All possible steps were taken to minimize the impact of the excess emissions on the ambient air quality;

10. All emission monitoring systems were kept in operation if at all possible;

11. The owner's actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs, or other relevant evidence; and

12. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance].

H. Nothing in this section shall be construed as giving an owner the right to increase temporarily the emission of pollutants or to circumvent the emission standards or monitoring requirements otherwise provided in ~~[these regulations]~~ the Regulations for the Control and Abatement of Air Pollution].

I. Regardless of any other provision of this section, the owner of any facility subject to the ~~[provisions of these regulations]~~ Regulations for the Control and Abatement of Air Pollution] shall, upon request of the board, reduce the level of operation at the facility if the board determines that this is necessary to prevent a violation of any ~~[primary]~~ ambient air quality standard [or any ambient air increment prescribed under 9 VAC 5-80-1730]. Under worst case conditions, the board may order that the owner shut down the facility, if there is no other method of operation to avoid a violation of the ~~[primary]~~ ambient air quality standard [or any ambient

REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION

air increment prescribed under 9 VAC 5-80-1730]. The board reserves the right to prescribe the method of determining if a facility will cause such a violation. In such cases, the facility shall not be returned to operation until it and the associated air pollution control equipment are able to operate without violation of any ~~[primary]~~ ambient air quality standard [or any ambient air increment prescribed under 9 VAC 5-80-1730].

J. Any owner of an affected facility subject to the provisions of this section shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. The records shall be maintained in a form suitable for inspection and maintained for at least two years following the date of the occurrence.

REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION (9VAC5-40)

**REVISION C09**  
**BOARD-ADOPTED REGULATION**

REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION (9VAC5-40)

9VAC5 CHAPTER 40  
EXISTING STATIONARY SOURCES

PART II  
Emission Standards

ARTICLE 56

Emission Standards for Letterpress Printing Operations in the Northern Virginia Volatile Organic Compound Emissions Control Area, 8-hour Ozone Standard (Rule 4-56)

9VAC5-40-8416. Facility and control equipment maintenance or malfunction.

The provisions of 9VAC5-20-180 (Facility and control equipment maintenance or malfunction) apply.

ARTICLE 56.1

Emission Standards for Offset Lithographic Printing Operations in the Northern Virginia Volatile Organic Compound Emissions Control Area, 8-hour Ozone Standard (Rule 4-56.1)

9VAC5-40-8470. Facility and control equipment maintenance or malfunction.

The provisions of 9VAC5-20-180 (Facility and control equipment maintenance or malfunction) apply.

REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION (9VAC5 CHAPTER 40)

**REVISION D09**  
**BOARD-ADOPTED REGULATION**

REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION (9VAC5 CHAPTER 40)

9VAC5 CHAPTER 40.  
EXISTING STATIONARY SOURCES.

PART II.  
Emission Standards.

ARTICLE 57.

Emission Standards for Industrial Solvent Cleaning Operations in the Northern Virginia Volatile Organic Compound Emissions Control Area, 8-hour Ozone Standard (Rule 4-57).

9VAC5-40-8640. Facility and control equipment maintenance or malfunction.

The provisions of 9VAC5-20-180 (Facility and control equipment maintenance or malfunction) apply.

ARTICLE 58.

Emission Standards for Miscellaneous Industrial Adhesive Application Processes in the Northern Virginia Volatile Organic Compound Emissions Control Area, 8-hour Ozone Standard (Rule 4-58).

9VAC5-40-8790. Facility and control equipment maintenance or malfunction.

The provisions of 9VAC5-20-180 (Facility and control equipment maintenance or malfunction) apply.

REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION (9VAC5-20 AND 40)

**REVISION E09**  
**BOARD-ADOPTED REGULATION**

REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION (9VAC5-20 AND 40)

9 VAC 5 CHAPTER 40.  
EXISTING STATIONARY SOURCES.

PART II.  
Emission Standards.

ARTICLE 59.

Emission Standards for Miscellaneous Metal Parts and Products Coating Application  
Systems in the Northern Virginia Volatile Organic Compound Emissions Control Area,  
8-hour Ozone Standard (Rule 4-59).

9VAC5-40-8940. Facility and control equipment maintenance or malfunction.

The provisions of 9VAC5-20-180 (Facility and Control Equipment Maintenance or  
Malfunction) apply.